**Virtual Circuit Lab**

**Glencoe virtual circuit lab**

**http://www.glencoe.com/sites/common\_assets/science/virtual\_labs/E14/E14.html**

For this lab, you will be visiting the Glencoe website to complete the virtual circuit lab! You MUST follow the instruction for the lab! You will be asked to:

* Design a series circuit (the procedure can be found on the website)
* Use Ohm’s Law to describe the relationship between voltage, current, and resistance
* Complete the table with your data
* Complete questions pertaining to the lab

**\*The procedure you must follow can be found on the left side of the virtual lab screen. Please follow the steps while completing the table.**

***V = I x R P = I x V***

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| --- | --- | --- | --- |
| **Voltage (Volts)** | **Resistance (Ohms)** | **Current (Amperes)** | **Power (Watts)** |
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1. What happens to the power of an electric circuit if the resistance is decreased? ***Explain*** your answer!
2. ***Explain*** how you can determine how much power a circuit will generate if you know the voltage and resistance but not the current.
3. Using Ohm’s law, ***explain*** how voltage changes in relation to current, assuming that resistance remains constant.
4. As the electric current in a lightbulb is slowly increased, the filament glows more and more brightly. Why does this happen?
5. Why did some of the lightbulbs you tried burn out?
6. Why is there zero current when a lightbulb burns out?